to the 19th century occupation of the site area are preserved. Permission to carry out Phase I/II archaeological research was denied by the present owner, A and L Associates. Phase I/II testing will have to be completed at this site after the condemnation process in order to complete the 106 compliance process.

INTERPRETATIONS AND CONCLUSIONS

IMPLICATIONS FOR REGIONAL PREHISTORY

Phase I/II archaeological research for the Ogletown Interchange project area resulted in the identification of four prehistoric sites (7NC-D-69, 125, 129, and 132) in the ROW and one outside the ROW (7NC-D-131). The locations of these sites confirmed existing models of prehistoric site locations. State and regional management plans (Custer 1986; Custer and DeSantis 1986) indicate that in areas with interior springheads and swamps, such as the project area, procurement sites dating to all time periods should be located on well-drained knolls adjacent to the swamps. Sites 7NC-D-129, 7NC-D-69, 7NC-D-132, and 7NC-D-131, which range in age from Paleo-Indian through Woodland I times fulfill this expectation. However, the range of artifacts recovered from the Dairy Queen site (7NC-D-129) may indicate a range of lithic reduction activities that are somewhat greater than what is normally expected at a procurement site. The Paradise Lane site (7NC-D-125) does not fit with the expectations of existing site distribution models in light of its large size and intensity of the occupation. The Paradise Lane site is certainly more than a procurement site and its location next to

an interior swamp may indicate that some of these settings may have been used more intensively than previously thought. Utilization of some interior swamps may be similar to the utilization of bay/basin features which are found further to the south in the High Coastal Plain (Custer and Bachman 1986). Further research at 7NC-D-125 will clarify the utilization patterns at the site.

Woodland I Period lithic resource utilization patterns at the major prehistoric sites identified during the survey can be compared to other local sites with Woodland I occupations. Table 12 shows a series of percentages of lithic types within assemblages from numerous local sites as well as from the Dairy Queen and Paradise Lane sites, which are the only two sites which produced assemblages large enough to allow meaningful comparisons. The assemblages from 7NC-D-125 and 129 are

TABLE 12

COMPARATIVE LITHIC RESOURCE UTILIZATION

Site	%Jasper	%Quartz	%Other	%Total Cortex	Source
7NC-D-54	29	49	22	28	Custer et al. 1981
7NC-D-55A	12	22	66	45	Custer et al. 1981
7NC-D-55B	5	42	53	29	Custer et al. 1981
7NC-D-62	10	33	57	41	Custer et al. 1981
7NC-E-6A	50	16	34	9	Custer 1982
7NC-E-6B	66	12	22	13	Custer 1982
7NC-E-42	35	29	36	19	Custer 1982
7NC-E-46	17	60	23	18	Custer and Bachman 1984
7NC-D-125	68	21	11	11	
7NC-D-129	74	20	6	6	
7NC-D-3	51	36	4	0	Custer et al. 1986
7NC-D-19	74	26	0	0	Custer et al. 1986

significantly different from the Green Valley sites (7NC-D-54, 55A, 55B, 62) which are cobble reduction sites nearby on the White Clay Creek (Custer, et al. 1981). The Green Valley assemblages are dominated by the reduction of quartz, quartzite, and jasper cobbles. The Ogletown area sites are also different from Clyde Farm area base camps (7NC-E-6A, 6B, 42) in that the Clyde Farm sites show greater instances of cobble reduction of non-cryptocrystalline materials (Custer 1982). The same contrast can be seen when the Ogletown area sites are compared to the Hawthorn site (7NC-E-46), a procurement/staging site (Custer and Bachman 1984). The Ogletown sites are most similar in their lithic utilization patterns to reduction sites (7NC-D-3, 19) associated with the Delaware Chalcedony Complex (Custer, Ward, and Watson 1986) and groups utilizing the Ogletown sites may have been derived from base camps located to the west along the Christina drainage. If this is the case, the poorly drained interior areas separating the Christina and White Clay drainages may have been utilized by varied Woodland I hunter/gatherer groups operating from base camps on either the lower reaches of the drainages near Churchman's Marsh or the upper reaches of the drainages to the west and north. In any event, lithic utilization patterns discovered through excavations at the Ogletown area sites highlight the variability of local lithic utilization patterns.

IMPLICATIONS FOR REGIONAL HISTORY

The results of the cultural resource survey of the Ogletown Improvements project area contributed to both methodological and

theoretical issues in the historical geography and historical archaeology of northern Delaware. Also this investigation has provided an additional data base which can be compared to results derived from other recent large scale surveys such as Route 7 North (Catts, Shaffer and Custer 1986), Route 896 (Lothrop, Custer and DeSantis 1986), and Route 141 (Taylor and Thompson 1986). The present research thus allows the further development of a unique perspective on regional cultural development and the generation and refinement of research questions for future research.

The identification and location of the 7 historic sites served to give partial support to locational models employing access to transportation routes as a major factor in historic site location due to the need for access to markets and as avenues for social interaction (Lemon 1972; Morrill 1974; Henry 1981). The results from research within the Ogletown project area found that this causative factor is applicable both to the original settling of the area in the late-17th to mid-18th century and to the second wave of settlement in the 19th century. The results of the investigation within Ogletown concerning the specific location of farmsteads/residences is different than what was found both along Limestone Road (Catts et al. 1986) and Route 896 (Lothrop et al. 1986). Documentary and archaeological research in those two studies found that few 18th century dwellings were located adjacent to, or were primarily oriented toward, the major transportation routes. A similar pattern is also seen in the Inner Coastal Plain of New Jersey where 18th century farmstead residences were located 100 to 800 feet from

the road (Manning 1984). In the Ogletown area the two 18th century sites (Thomas Ogle and John Ruth) were both located less than 100' from the major transportation route. The 19th century saw an alteration of the placement of historic sites as previously occupied land parcels were subdivided into smaller parcels or as additional residences were added to the original parcels. In both cases, there was a trend throughout northern Delaware to locate these residences along the existing roadway. Whether the structure was a tenant house (W. E. Heisler Tenancy site) or the residence of a craftsman or artisan (John Sayer House) the structures are consistently located within 100' of the pre-existing roadway.

With regard to research methods, the results of the Phase I reconnaissance survey of historic cultural resources showed the importance of a total and complete deed research, tract reconstruction, and tax assessment and probate research, for the prediction of historic site locations, especially for the pre-1849 period, in large project areas. In the absence of any reliable regional or statewide predictive models for historic site locations, the construction of tract/plat maps (Figure 21) for different time periods, such as the mid-18th century, mid-19th century, and mid-20th century, enhanced the Phase I reconnaissance survey of all historic resources within the project area.

The deed research, and related research, also provided information on landholding practices and ethnic and religious diversity in relation to property owners in the project area.

Within the Ogletown area, conclusions can be reached concerning both of these topics. The first is that the practice of the purchase or transfer of land between kin or familially-related persons was practiced in less than 25% of the deed transfers of property within the project area after the late-18th century dispersal of Thomas Ogle II's landholdings. Control of the properties in over 75% of the transfers went to non-relatives from outside White Clay Creek Hundred and approximately 50% of the deed transfers were from out-of-state, non-residents who purchased the properties for speculative purposes or in order to create tenant farms. This landholding pattern is similar to that found within the Route 896 (Lothrop et al. 1986) and the Route 141 study area (Taylor and Thompson 1986), but is very different from the Route 7 North project area (Catts et al. 1986). Within the Route 7 project area, from a sample of 113 deed transfers over 70% of the buyers were residents of Mill Creek Hundred, or were purchasing land from relatives. This pattern is suggested to have promoted a sense of "community" within the area which has persisted up to the present day. Within Ogletown, the continuity of ownership and sense of "community" were not maintained through time and did not develop until the late 19th century with the purchase of large tracts by the Hawthorn family and the subsequent subdividing of the parcels among family members in the early 20th century.

The lack of continuity and diversity of ethnic groups is one of the factors that Lemon (1972) sees as a damper that prevented the development of a homogeneous community. A major factor discussed by Lemon (1972) for the lack of the establishment or

growth of agricultural villages was the movement, first seen in England, towards individualization of decision-making. Thus, many heads-of-households chose to live on their own farms. Even when a hamlet, tavern, or mill was created at a crossroads, there was usually no sense of community created because a single proprietor was usually involved in the establishment and operation of the enterprise. In Ogletown, this situation is found with the social and economic force of Thomas Ogle I and Thomas Ogle II who were responsible for the founding of Ogletown but were also major causes of the stagnation of the village after its mid-18th century founding. Even though the overland transportation system serving Ogletown in the 18th century was theoretically conducive to the establishment and growth of the village as a major central place in the region, the town stagnated due to the overriding social and economic influence of the Ogle family. Thus, although the John Ruth Inn served as a focal point relative to the surrounding region where frequent social interactions of various kinds took place (Hickman 1977:96), because of the factors discussed above there was no economic impetus for the further development of Ogletown beyond the hamlet level of development. The rapid development of Ogletown between 1780 and 1820 is mirrored throughout Northern Delaware in both urban and rural settings. However, the decline of Ogletown was not due to a lack of access to transportation routes as was the case for the surrounding communities of Stanton, Glasgow, and Christiana.

CULTURAL RESOURCE MANAGEMENT CONCLUSIONS AND RECOMMENDATIONS

Phase I field survey of the Ogletown Interchange project area resulted in intensive surface reconnaissance and test unit excavation within an area of approximately 100 acres including approximately 3.5 miles of linear right-of-way. Over most of the proposed ROW, vegetation cover made surface reconnaissance impossible and the excavation of measured test units was therefore the primary Phase I testing procedure. Eleven archaeological sites were located by the Phase I testing and eight of these required additional Phase II testing (Table 1). Table 13 lists the archaeological sites located and tested by Phase I/II research for which no further research is recommended because they are not eligible for listing on the National Register of Historic Places.

TABLE 13

SUMMARY OF OGLETOWN PROJECT AREA SITES
REQUIRING NO FURTHER WORK

CRS#	Site Number	and Name
N-10894	7NC-D-128	W. E. Heisler Site
N-5309, 215	7NC-D-69	Ogle Site (Prehistoric & Historic Component)
N-10893	7NC-D-127	W. E. Heisler Tenancy Site
N-10945	7NC-D-132	Norman Tyndall Site
N-10944	7NC-D-131	Gabor Site (Areas A and B)

Table 14 lists the archaeological sites identified by the cultural resource survey of the Ogletown Improvements Area where further work, either in the form of Phase II intensive testing or Phase III data recovery excavations, are recommended. In the case of two of these sites, the Robert Ogle site (N-11071, 7NC-D-

TABLE 14

SUMMARY OF OGLETOWN PROJECT AREA SITES
REQUIRING FURTHER WORK

CRS#	Site Number and Name		Work Required
N-10891	7NC-D-125	Paradise Lane Site Extension	Phase II
N-5308	7NC-D-68	A. Temple Site	Data Recovery
N-10892	7NC-D-126	John Ruth Inn Site	Phase II
N-11071	7NC-D-105	Robert Ogle Site	Phase I/II
N-11072	7NC-D-133	John Sayer Site	Phase I/II
N-10895	7NC-D-129	Dairy Queen Site	Phase II

105) and the John Sayer site (N-11072, 7NC-D-133), no Phase I archaeological testing was conducted due to access difficulties. Further Phase II testing is recommended for three sites (John Ruth Inn, Dairy Queen, and Paradise Lane - Table 14). One site -- the Albert Temple site (7NC-D-68) is eligible for listing in the National Register of Historic Places under Criterion "D". A Determination-of-Eligibility form for this site has been prepared and is included in Appendix IV. If the site cannot be avoided during construction, data recovery excavations may be necessary to mitigate the adverse effects of the project upon the site.